

SECTION 04530

PLASTER/STUCCO REPAIR

PART 1 GENERAL

1.01 DESCRIPTION

- A. Work included: Furnish and install a polymer modified cementitious parge with surface sealant, in place, as designated in the Summary of Work, as shown in detail drawings, and as specified herein.
- B. Contractor shall repair all plaster/stucco surfacing which is cracked, chipped spalled, or in other unsound condition for work under this section.
- C. Repair all substrate conditions as needed above the plaster/stucco repair areas to make structurally sound surfaces to receive the brown or scratch coat of portland cement mix and plaster/stucco coatings. Work shall be performed as outlined in this specification section or as required by manufacturer for proper application of materials under this section.
- D. Surface of masonry shall receive at least one brown and scratch coat of portland cement mixed with lime, sand, and water or portland cement mixed with masonry cement, sand, and water with the coat used complying with ANSI A 42.2-1971 and ASTM requirements.
- E. Install a plaster/stucco surfacing over the initial preparatory brown coat per the plaster/stucco material manufacturer's recommendations and it shall be similar in color, texture, and level to that of the adjoining plaster/stucco surfaces using only approved products and procedures.

1.02 RELATED SECTIONS

- A. Section 01110 – Summary of Work
- B. Section 07920 – Sealants and Caulking
- C. Section 09830 – Elastomeric Coating

1.03 REFERENCES

- A. American Society for Testing and Materials (ASTM) *Book of Standards*

1.04 SUBMITTALS

- A. As provided in Section 01330 and 01340.

- B. Product Data: For each type of manufactured material and product.

#### 1.05 QUALITY ASSURANCE

- A. As provided in Section 01450.

- B. Qualifications of Manufacturer

- 1. Products used in the work included in this section shall be produced by manufacturers regularly engaged in the manufacturing of similar items and with a history of successful production and product installations.

- C. Qualifications of Contractor

- 1. The contractor shall be previously and currently approved by the manufacturer of the replacement products to be installed under this section of the specification. Verification of approved Contractor status shall be by written manufacturer certification, as stated elsewhere.

- D. Qualifications of Installers

- 1. Installers shall be thoroughly trained and experienced in the necessary crafts. Installers shall be made familiar with any unique requirements specified for proper performance of the work in this section.

- E. Rejection

- 1. In the acceptance or rejection of work under this section, no allowance will be made for lack of skill or specification understanding on the part of the workmen. It shall be incumbent upon the contractor to use adequate numbers of skilled installers and to instruct them in the requirements of the project specifications as well as maintaining a set of the project specifications and drawings on the roof at all times.

- F. Replacement

- 1. In the event inadequate or improper installation is determined, contractor shall make all repairs and replacements required to render the installation compliant with the project specifications. Replacements, due to improper performance, shall be at the sole cost of the contractor

#### 1.06 PRECONSTRUCTION CONFERENCE

- A. As provided in Section 01312.

#### 1.07 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Delivery: Material shall be delivered in the manufacturers original sealed and labeled containers or wrappings and in sufficient quantities to provide for continuous installation progress without disruption or delay due to lack of materials on site.
- B. Storage: Materials shall be stored out of direct exposure to the elements and shall be stored on pallets or other storage supports, a minimum of 6 inches above the roof or ground surface. All materials shall be covered with canvas tarps or fitted synthetic tarp like covers.
  - 1. If materials are to be stored on the roof, they shall be sufficiently distributed around the perimeter or over load bearing supports to prevent over stressing of the roof deck.
  - 2. Polyethylene roll stock material is not an acceptable tarp material.
  - 3. Prior to leaving the job site daily, tarps are to be secured at all edges to immovable objects and anchored sufficiently to prevent blow off or dislocation.
- C. Handling: Material shall be handled in such a manner as to preclude damage or contamination with moisture or foreign matter.
- D. In the event of damage from delivery, storage, or handling of materials under this section, immediately replace deficient materials. Any installation of damaged materials shall be immediately removed and replaced. Replacement of damaged or improperly installed materials shall be at the sole cost of the contractor.

#### 1.08 ENVIRONMENTAL REQUIREMENTS

- A. Plaster/stucco repair shall not commence during inclement weather.
- B. Work shall not be performed under this section if the ambient temperature is below 40 degrees Fahrenheit, without prior written approval.
  - 1. When ambient temperatures are anticipated or forecast to drop below 40 degrees Fahrenheit during the course of the work, a manufacturer approved Cold Weather Application Specification shall be submitted for review and approval.
  - 2. Submission of a Cold Weather Application Specification does not constitute approval for application of work under this section. No work shall be performed until written approval and authorization has been received.

#### 1.09 SEQUENCING AND SCHEDULING

- A. Coordinate and schedule all phases of the Work of the Contract Documents with the The City of Houston, Consultant, Subcontractors, Material Suppliers and other

parties as necessary to ensure the smooth and orderly transition of separate phases, or portions, of the Work, the timely placement of components and materials, including the complete cooperation between parties and proper execution of the Work.

- C. Work shall not be performed outside of normal business hours without the prior approval of the Consultant and/or The City of Houston's representative.
- D. Work is to be performed on a daily basis, with each section completed before progressing to the next days work.

#### 1.10 GUARANTEE AND WARRANTIES

- A. Contractors Warranty: Provide a written warranty to the City of Houston which warrants repairs for defects in materials and workmanship for five years following the date of final acceptance by the City of Houston.

### PART 2 PRODUCTS

#### 2.01 GENERAL

- A. Provide products which are recommended by the manufacturer and that are fully compatible with indicated substrates and other assembly components.

#### 2.02 MATERIALS:

- A. The installed scratch coat, brown coat, and finished plaster/stucco surface system shall consist of the following components.
- B. Scratch Coat: To be portland cement, lime, sand and water or portland cement, masonry cement, sand, and water and its mix and application shall conform fully with ANSI A 42.2 - 1971.
- C. Brown Coat: To be the same mixture of materials as listed in A.
- D. Plaster/Stucco: To be a cement based product which is labeled as plaster/stucco from one of the manufacturer's listed below:
  - 1. Approved Manufacturers
    - a) Thoro Systems Products, Inc. - Miami, FL
    - b) Sonneborn Building Products, Rexnord Chemical Products, Inc., Minneapolis, MN
    - c) Hydrozo Coatings Company, Inc., Lincoln, NE
    - d) VIP Enterprises, Inc. - Miami, FL
  - 2. The plaster/stucco material shall be a waterproof, mill-mixed, carefully formulated cement-base fine finish material that when applied shall be durable and similar in color to the existing adjacent plaster/stucco materials.

## **2.03 APPLICATION EQUIPMENT**

- A. Shall be as recommended by the manufacturer for proper application of materials in this section.
- B. Provide all other products required by the manufacturer for a complete installation, including but not limited to:
  - 1. Surface Primers
  - 2. Curing Compounds
  - 3. Backer or Filler Material
  - 4. Scratch and Brown Coats
  - 5. Finish Plaster/Stucco Coat

## **PART 3 EXECUTION**

### **3.01 GENERAL**

- A. When approved during submittal review, the manufacturer's published recommended method of installation, unless superseded by the specification, will become the basis for inspection and acceptance or rejection of the actual installation procedures used on this work.
- B. Contractor shall perform work in a manner to prevent damage to sequentially prior work. Verify that all work specified elsewhere in the project specifications is properly installed and that the prepared substrate is ready for application of the work under this section.
- C. Contractor shall take all due care to prevent damage to adjoining work, and facility and ground, during the performance of work under this section. Any damages resulting from improper sequencing, improper application or negligence shall be repaired by the contractor who shall be solely responsible for costs incurred.

### **3.02 SURFACE PREPARATION**

- A. Contractor shall remove all dirt, oils, asphalt, or other surface contaminants that would prevent proper bonding of the scratch coat and all surfaces shall be structurally sound.
- B. Loose mortar and poorly bonded pieces of masonry shall be removed and repaired to provide sound surfaces. Spalled areas or areas of broken masonry shall be chiseled or scored to provide shoulders or edges to accommodate repairs.
- C. Surfaces to receive the scratch coat shall be pre-dampened prior to scratch coat application. Care shall be taken not to over wet surfaces.

### **3.03 SCRATCH COAT APPLICATION**

- A. Scratch coat shall be mixed in accordance with plaster/stucco manufacturer's requirements. Adulteration of mixture is prohibited and material shall be rejected.
- B. Trowel scratch onto masonry surface. Care shall be taken at holes and cracks in the mortar and masonry to assure the area is fully packed and troweled with scratch coat. Thoroughly compact and trowel the scratch coat to secure bond.
- C. Surface shall be finished with a rough cross hatched finish and shall be continuous with a minimum thickness of 1/4". Do not over work the scratch coat.
- D. If required by the plaster/stucco manufacturer, provide damp cure or surface curing agent for the scratch coat.
- E. Contractor shall provide protection of newly installed scratch coat as required by the manufacturer during curing to prevent damage from the elements.
- F. The scratch coat materials must be thoroughly mixed in proportions and mixing is recommended by the manufacturer and it shall be in accordance with ANSI A 42.2 - 1971.

#### 3.04 BROWN COAT APPLICATION

- A. The brown coat shall be mixed in proportion and with materials similar to the scratch coat and shall be in accordance with ANSI A 42.2 - 1971.
- B. After the scratch material has cured properly, trowel the brown coat over the scratch coat a minimum of 1/4" thick. Care shall be taken to assure that the brown coat is fully adhered to the scratch coat for proper bond.
- C. The brown coat surface shall be finished with a medium cross hatched finish to help hold the plaster/stucco material.
- D. If required by plaster/stucco manufacturer, provide a damp cure or surface curing agent for the brown coat.
- E. Contractor shall provide protection of newly installed brown coat as required by the manufacturer during curing to prevent damage from the elements.

#### 3.05 PLASTER/STUCCO

- A. All surfaces to receive plaster/stucco must be clean and structurally sound.
- B. All painted surfaces must be sand blasted first, to be free of all foreign matter, and brown coat prior to the plaster/stucco application.
- C. Mix the plaster/stucco mix with clean, potable water. Thoro Acryl 60 can be added

to the mixing water to improve bonding and crack-resistant qualities.

- D. Measure equal amounts of the mixing liquid for each batch and machine mix all ingredients of each batch the same length of time to assure color uniformity. Add only enough of the mixing liquid to bring plaster/stucco mixture to a smooth, lump-free consistency.
- E. Trowel Application: Apply a light, thin coat of plaster/stucco mixture over the brown coat surface and the double back with other additional applications in the same manner.
- F. When the proper level of plaster/stucco is reached, texture the plaster/stucco surface with either a sponge, trowel, brush or broom to the desired texture. The finished color and texture shall be similar to that on the adjoining wall surfaces.
- G. Do not apply to frozen or frost-filled surfaces or when the temperature is below 50 degrees Fahrenheit or is expected to fall below 50 degrees Fahrenheit within 24 hours.

### 3.06 PLASTER/STUCCO CURING

- A. The plaster/stucco shall be protected from the elements and be allowed to cure in accordance with the plaster/stucco manufacturer's instructions.
- B. Surfaces shall be closely examined for cracks, voids, breaks, leveling, differences, and color differences. Repair of all deficiencies shall be required.

### 3.07 PROTECTION

- A. Contractor shall protect all adjacent work and materials by suitable covering or other methods during performance of work.

### 3.08 CLEAN UP

- A. Upon completion of the work, contractor shall remove all splattered materials from roof, sidewalks, sheet metal, and other adjacent surfaces.
- B. Contractor shall remove from the premises all rubbish and accumulated materials and equipment associated with this work.

- End of Section -